

# ARA-290

## Overview

ARA-290, also known as cibinetide, is an 11-amino acid peptide derived from erythropoietin (EPO), a hormone primarily responsible for stimulating red blood cell production. Unlike EPO, ARA-290 does not promote erythropoiesis; instead, it selectively activates the innate repair receptor (IRR), a complex formed by the erythropoietin receptor and the  $\beta$ -common receptor. This activation initiates anti-inflammatory and tissue repair pathways, offering potential therapeutic benefits without the hematopoietic side effects associated with EPO.

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## How Does ARA-290 Work?

ARA-290 binds to the IRR, which is upregulated in response to tissue injury, hypoxia, or metabolic stress. By activating this receptor, ARA-290 triggers anti-inflammatory responses and promotes tissue repair, including neuroprotection and improved vascular health.

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## Potential Benefits

The health benefits of ARA-290 (cibinetide) primarily stem from its anti-inflammatory and tissue repair properties. Here's a closer look at its potential benefits:

1. **Relief from Neuropathic Pain**

ARA-290 has been shown to reduce inflammation and promote nerve repair, making it potentially effective for managing neuropathic pain, especially in conditions like sarcoidosis and diabetic neuropathy.

2. **Improvement in Diabetic Neuropathy**

Studies have indicated that ARA-290 may help alleviate neuropathic symptoms in patients with type 2 diabetes. This can enhance quality of life by reducing pain, tingling, and other neuropathic issues related to diabetes.

3. **Anti-inflammatory Effects**

By activating specific repair receptors, ARA-290 initiates anti-inflammatory pathways, helping to reduce systemic inflammation. This is beneficial in a variety of inflammatory and autoimmune conditions, potentially reducing symptoms and disease progression.

4. **Tissue Protection and Repair**

ARA-290 may assist in repairing and protecting tissues, especially in cases of injury, hypoxia (lack of oxygen), or ischemia (restricted blood flow). This includes benefits for wound healing and vascular health, which can be particularly useful in ischemic injuries or in tissues affected by chronic inflammation.

5. **Potential Neuroprotection**

The peptide may offer neuroprotective benefits by promoting nerve cell repair and reducing inflammation in the nervous system, potentially improving outcomes in neurological conditions involving nerve damage.

## 6. Enhanced Vascular Health

By reducing inflammation and promoting tissue repair, ARA-290 can improve vascular health, which is crucial for overall cardiovascular health and may be protective in diseases that impact blood vessels.

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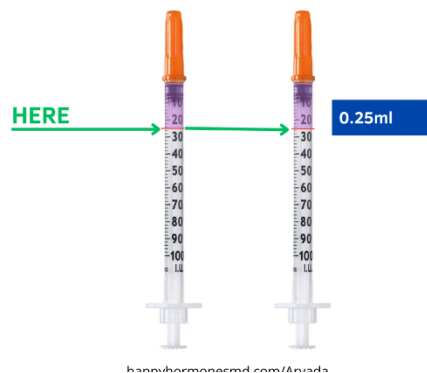
## Potential Side Effects

The side effects of ARA-290 appear to be minimal based on early studies, but as with any medication or therapeutic peptide, some risks and side effects may occur. Commonly reported side effects include:

1. **Elevated Blood Pressure:** Some individuals may experience temporary increases in blood pressure, although this effect is generally mild.
  2. **Increased Heart Rate:** A slight increase in heart rate has been noted in some cases. This is usually not significant but should be monitored in individuals with heart conditions.
  3. **Liver Enzyme Elevation:** In some cases, ARA-290 can cause a mild increase in liver enzymes. Regular monitoring of liver function is recommended, especially for those with pre-existing liver issues.
  4. **Injection Site Reactions:** As ARA-290 is typically administered via injection, local reactions at the injection site (such as redness, itching, or swelling) can occur.
  5. **Dizziness or Lightheadedness:** Some users report mild dizziness or lightheadedness, especially if blood pressure changes occur.
  6. **Fatigue or Nausea:** A small number of individuals report feeling tired or slightly nauseated after administration.
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## Dosage Guidelines

**Recommended Dose:** Inject **2mg (0.25ml or 25 units)** on an insulin syringe) subcutaneously every day for 6 weeks. Cycle may be repeated if needed.



## Cost

ARA-290 is currently only available as a research peptide. Please see document titled “Research Peptide Information” in the Education Folder under Records in the patient portal.

**ARA-290 16mg Vial (8mg/ml):** \$138.50 (Includes shipping and bacteriostatic water for reconstitution).

- One vial provides: 8 doses. A six-week cycle requires 5 vials

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## Important Disclosures

- These statements have not been evaluated by the US Food and Drug Administration (FDA).
- Not intended to diagnose, treat, cure, or prevent any disease.
- Compounded drugs and research peptides are not FDA-approved but are produced under strict quality control measures.

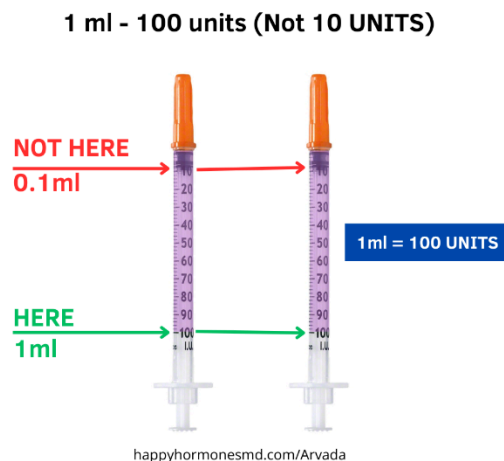
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## Reconstitution Instructions

### IMPORTANT:

- Follow the instructions below regarding the amount of bacteriostatic water to use when reconstituting the peptide. **DO NOT** follow the instructions that come with the peptide.
- **Do NOT** throw away the vial of bacteriostatic water!!! It is a multiuse vial and can be used for your next order!

Inject **2 ml** of bacteriostatic water into the vial of powder (**2 ml = 200 units**).



- See the **document** titled “Reconstituting Medications in Powder Form” in the Education Folder in the patient portal.
- See the following **Instructional videos** in the Education Folder in the patient portal:

- *“Reconstituting Powdered Medications”*
  - *“Injection Video – Introduction”*
  - *“Injection Video – Drawing Up the Medication”*
  - *“Injection Video – Administering the Medication”*
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### Storage and Stability

- Vials are shipped as **lyophilized powder**, requiring no refrigeration during shipping.
  - In Lyophilized Form:
    - Stable for up to 3 years in the freezer and 2 years in the refrigerator.
    - Protect from light.
  - Once Reconstituted:
    - Stable for 6 weeks.
    - Must be refrigerated and kept away from light.
    - Avoid placing vials in the refrigerator door to prevent degradation from frequent temperature changes.
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### Quality Assurance

- All research peptides are subjected to third-party testing with publicly available Certificates of Analysis (COA).
- Testing includes:
  - RP-HPLC (Reversed-Phase High-Performance Liquid Chromatography)
  - Mass Spectrometry (MS)
  - Sterility Testing
  - Additional tests meeting or exceeding U.S. Pharmacopeia (USP) and USP-National Formulary (NF) regulations.

The manufacturer ensures quality, safety, and efficacy, complying with regulatory standards.

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